

**ADDENDUM NO. 1
TO THE CONTRACT DOCUMENTS
FOR THE CONSTRUCTION OF
SOUTHWEST AQUEDUCT REACH 2 PROJECT**

Date: February 6, 2025

To All Planholders and/or Prospective Bidders:

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for the Construction of the Southwest Aqueduct Reach 2 Project, dated January 2025 as fully and completely as if the same were fully set forth therein.

Bidder must acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

***Questions and requests for clarifications that are not addressed in this Addendum will be responded to in an Addendum to follow prior to Bid Opening.*

BIDDING DOCUMENTS

1. Section C – BID SCHEDULE

- a. DELETE Section C and REPLACE with the attached Section C. This updated Section C – BID SCHEDULE includes an Allowance Item for Schedule A and Schedule B.

TECHNICAL SPECIFICATIONS

1. Section 33 05 07 – STEEL PIPE CASING

- a. DELETE Part 2.1 paragraph A.in its entirety.

2. Section 01 20 00 – MEASUREMENT AND PAYMENT

- a. DELETE Section 01 20 00 and REPLACE with the attached Section 01 20 00. This updated section includes the added Bid Item 26 – ALLOWANCE for permits, corrections to the payment descriptions of Bid Item 6 and Bid Item 12.

DRAWINGS

1. Drawing GS-01 – GENERAL STRUCTURAL NOTES, sheet 66 of 100

- a. The original drawing is not clear, DELETE drawing GS-01 and REPLACE with the attached drawing GS-01.

2. Drawing CP-02 – JA-2 TYPE A TEST STATION PLANS, sheet 45 of 100

- b. Scales on the two windows are incorrect, DELETE drawing CP-02 and REPLACE with the attached drawing CP-02.

3. Drawing GC-07 – GENERAL CIVIL DETAILS – 7, sheet 57 of 100
 - a. ADD the following note to Detail C-2742:
“10. FOR PVC CARRIER PIPE, ONE SPACER SHALL BE PLACED AT THE CENTER OF EACH SEGMENT AND ANOTHER ON THE SPIGOT END OF EACH SEGEMENT AT THE LIMIT OF INSERTION LINE INTO THE BELL. WHEN THE JOINT IS COMPLETE, THE SPACER SHALL BE IN CONTACT WITH THE BELL OF THE JOINT SO THE SPACER PUSHES THE JOINT AND RELIEVES COMPRESSION WITHIN THE JOINT.”
4. Drawing S-02 –VAULT STRUCTURAL PLAN AND SECTIONS – sheet 62 of 100
 - a. In Table 1 and Table 2, CHANGE SWA-2 Station “405+23” to “404+62”.
5. Drawing C-07 – JBID SSMH RELOCATION – sheet 36 of 100
 - a. Add the following note:
“9. CONTRACTOR TO POT HOLE AND VERIFY SEWER ANGLES INTO AND OUT OF MANHOLE PRIOR TO ORDERING SEWER MANHOLE.”

GENERAL QUESTION RESPONSES AND CLARIFICATIONS

- i. Q: Can polyurethane coating be added as an alternative for the steel piping?

A: The Owner has provided two options for coatings in specification sections 09 90 00 – Protective Coatings and Linings and 09 90 10 – Pipeline Coatings and Linings. Polyurethane will not be accepted on this project as a coating system.
- ii. Q: When submitting a bid bond, is there an Engineer’s Estimate for the project?

A: Bonding is in the range of \$40 million for the total of both bid schedules.
- iii. Q: The M&P for Bid Item #4 11800 South Open Cut says the 66” and 60” pipe will be paid under a separate bid item. The Stationing for this crossing is from 424+00 to 424+83. However, this section is not listed in the other bid items (it might be implied in Bid Item #8). Can you clarify this item?

A: Yes. Bid Item #10 Southwest Aqueduct Reach 2 Testing, Disinfection and Connections to Existing SWA – Complete, includes the work from STA 424+00 to STA 424+82 including all pipe and appurtenances.
- iv. Q: For Bid Item #15 Air Valve/Maintenance Structure the quantity looks to be 7 instead of 6, STA 320+87, 337+42, 354+36, 365+82, 372+72, 404+62 & 422+19.

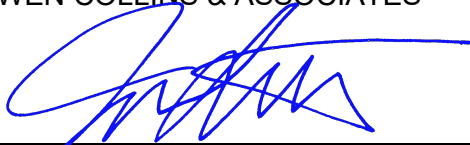
A: Quantity for Bid Item #15 is 6, the structure at STA 337+42 is Bid Item #16.
- v. Q: Will Riverton City require a permit/fee for quantity of asphalt removed?

A: Riverton City requires an encroachment permit and a land disturbance permit. Bid Item 26 Permit Allowance has been added for these costs.

vi. Q: Can the Owner provide access to dig test holes along the Easement during the bid period?

A: Additional subsurface investigation cannot be accommodated during the bid period. There is not sufficient time to get approval from the BOR for test holes in the BOR easement, please use the test hole information provided in the geotechnical report.

BOWEN COLLINS & ASSOCIATES



Jason Luettinger, P.E.
Project Manager

END OF ADDENDUM

**ATTACHMENT 1
REVISED BID DOCUMENTS**

BID

BID TO: JORDAN VALLEY WATER CONSERVANCY DISTRICT

The undersigned Bidder hereby proposes to furnish all plant machinery, labor, services, materials, equipment, tools, supplies, transportation, utilities, and all other items and facilities necessary to perform all work required under the Bidding Schedule of the Owner's Contract Documents entitled "Southwest Aqueduct Reach 2" drawings and all addenda issued by said Owner prior to opening of the bids.

Addenda, if issued, are only delivered by e-mail to those on Owner's website (jvwcd.org) Plan Holders List.

The undersigned bidder acknowledges receipt of the following addenda:

<u>No.</u>	<u>Date Received</u>	<u>No.</u>	<u>Date Received</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Bidder agrees that, within 10 calendar days after receipt of Notice of Award from Owner, he will execute the Agreement in the required form, of which the Notice Inviting Bids, Instructions to Bidders, Bid, Information Required of Bidder, Technical Specifications, Drawings, and all addenda issued by Owner prior to the opening of bids, are a part, and will secure the required insurance and bonds and furnish the required insurance certificates; and that upon failure to do so within said time, then the bid guarantee furnished by Bidder shall be forfeited to Owner as liquidated damages for such failure; provided, that if Bidder shall execute the Agreement, secure the required insurance and bonds, and furnish the required insurance certificates within said time, his check, if furnished, shall be returned to him within five days thereafter, and the bid bond, if furnished, shall become void. It is further understood that this bid may not be withdrawn for a period of 45 days after the date set for the opening thereof, unless otherwise required by law.

Dated: _____

Bidder: _____

By: _____
(Signature)

Title: _____

Bidder further agrees to complete all work required within the time stipulated in the Contract Documents, and to accept in full payment therefore the price(s) named in the above-mentioned Bidding Schedule(s).

BID

BID SCHEDULE

PART 1 – GENERAL

1.1 CONSTRUCTION CONTRACT

- A. Name of Project: Southwest Aqueduct Reach 2 Project
- B. Owner's Project Number: 4321

1.2 SCHEDULES TO BE ADDED TO THE AGREEMENT

- A. Bid Schedule contains the schedules of prices which will be incorporated into the Agreement (Section F) by reference.

1.3 SCHEDULES OF PRICES

- A. The Contract has been divided into separate Bid Schedules for purposes of award. The Owner reserves the right to award a single Contract based upon the lowest overall project cost, or any combination of the individual bid schedules as described herein.
- B. Schedule A: Generally includes all Work associated with SWA Reach 2 from the connection at 13400 South to an existing 66-inch pipeline and a connection at 11800 South to an existing 60-inch pipeline, including air valve vault and drain structures, modifications to the 12600 South JA Interconnection Vault, restoration and miscellaneous cathodic protection improvement sites.
- C. Schedule B: Generally includes all Work within the JWCD property at 11400 South for construction of a mainline valve vault on the Jordan Aqueduct including installation of a large butterfly valve and appurtenances.
- D. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the bidding documents without consideration of possible substitution of "or equal" items.

BID

Bid Schedule – Unit Prices:

E. BID SCHEDULE A – SOUTHWEST AQUEDUCT REACH 2 PROJECT

Base Bid Items				
Item No.	Classification of Unit Price Work	Quantity Unit	Unit Price	Amount
1A	Mobilization, Demobilization, Temporary Facilities and Administrative Items	1 Lump Sum		\$
2	12600 South Trenchless Crossing – Complete, without 66” SWA-2	1 Lump Sum		\$
3	Jordan Aqueduct Trenchless Crossing – Complete, without 66” SWA-2	1 Lump Sum		\$
4	11800 South Open Cut Crossing – Complete	1 Lump Sum		\$
5	66-inch Southwest Aqueduct Reach 2 – Complete, STA 319+46 to STA 365+50, 3200 West	1 Lump Sum		\$
6	66-inch Southwest Aqueduct Reach 2 – Complete, STA 365+50 to STA 389+20, Cedar Brae Park, 12600 South Crossing, Private Properties and Unimproved Area	1 Lump Sum		\$
7	66-inch Southwest Aqueduct Reach 2 – Complete, STA 389+20 to STA 404+00, 3200 West	1 Lump Sum		\$
8	66-inch Southwest Aqueduct Reach 2 – Complete, STA 404+00 to STA 424+00, 3200 West	1 Lump Sum		\$
9	Trench Stabilization Material, Only as Directed by Engineer	3,000 Cubic Yards	\$	\$
10	Southwest Aqueduct Reach 2 Testing, Disinfection and Connections to Existing SWA – Complete	1 Lump Sum		\$
11	Cathodic Protection – Complete	1 Lump Sum		\$
12	12600 South Vault Improvements – Complete	1 Lump Sum		\$
13	12600 South Vault Improvements, Items Shaded for Schedule Constraints	1 Lump Sum		\$
14	13400 South Vault Improvements – Complete	1 Lump Sum		\$
15	Air Valve/Maintenance Structure	6 Each	\$	\$

BID

Base Bid Items				
Item No.	Classification of Unit Price Work	Quantity Unit	Unit Price	Amount
16	Drain/Maintenance Structure	1 Each	\$	\$
17	JBID Sanitary Sewer Manhole and Sewer Relocation – Complete, Jordan Basin Improvement District Standards	1 Lump Sum		\$
18	12" Waterline Loop Over SWA-2, Riverton City Standards	1 Each	\$	\$
19	10" Pressurized Loop Over SWA-2, Riverton City Standards	1 Each	\$	\$
20	Asphalt Restoration, 3200 West	2,100 Cubic Yards	\$	\$
21	Asphalt Restoration, 11800 South	150 Cubic Yards	\$	\$
22	2" Mill and Overlay, 3200 West	375,000 Sq. Feet	\$	\$
23	Irrigation System Relocation, 12495 South to 12353 South	1 Lump Sum		\$
24	Contractor Excavation and Backfill to Support Utility Relocation of Communication Utility Conflicts north of 12600 South, CenturyLink/Lumen	1 Lump Sum		\$
26A	Permit Allowance (ADD_1)	Allowance		\$ 200,000
TOTAL BID SCHEDULE A:			\$	

Bid Adjustment – Southwest Aqueduct Reach 2 Project

The bid adjustment allows the Bidder to adjust their base bid just prior to bid opening without the need to adjust individual bid item amounts. The sum of the extended total shall be increased or (decreased) by this Bid Adjustment amount. Indicate decrease in parenthesis (). For payment purposes, this correction amount will be applied to Bid Items No. 5, 6, 7, and 8 proportionally to the amount bid for those items.

Bid Adjustment _____ \$ _____

Total adjusted BID Schedule A _____ \$ _____

BID

F. BID SCHEDULE B – 11400 SOUTH MAINLINE VALVE VAULT

Base Bid Items				
Item No.	Classification of Unit Price Work	Quantity Unit	Unit Price	Amount
1B	Mobilization, Demobilization, Temporary Facilities, and Administrative Items	1 Lump Sum		\$
25	11400 South Vault Improvements – Complete	1 Lump Sum		\$
26B	Permit Allowance (ADD_1)	Allowance		\$ 20,000
TOTAL BID SCHEDULE B:				

G. BID TOTAL – BID SCHEDULES A & B

Bid Total	
BID TOTAL– Bid Schedule A Including Bid Adjustment and Bid Schedule B:	\$

1. Bidder agrees to accept as full payment for Work proposed with the Bidding Documents, based upon the undersigned’s own estimate of quantities and costs and including sales, consumer, use, other taxes, and overhead and profit.
2. Based upon Bidder’s own estimate of quantities and costs, the Bidder, if awarded the contract, payment shall be made for the items as outlined in Section 01 20 00 – Measurement and Payment.
3. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.
4. Identify Steel Pipe Supplier, **Circle One:**
 - a. Northwest Pipe Company
 - b. Thompson Pipe Group
 - c. Other, _____ (Name Supplier)

BID

5. Identify Steel Pipe Coating System, **Circle One**:

- a. Straights: Tape Wrap with Cement Mortar Overcoat, and Specials: Epoxy
- b. Straights: Epoxy with Cement Mortar Overcoat, and Specials: Epoxy

Bidder (Company name): _____

By: _____
(Signature)

Dated: _____

Name: _____

Title: _____

ATTACHMENTS TO THIS BID

The following documents are attached to and made a condition of this Bid:

- 1. Required Bid security in the form of Bid Bond.
- 2. Information Required of Bidder.

ATTACHMENT 2 REVISED SPECIFICATIONS

**SECTION 01 20 00
MEASUREMENT AND PAYMENT**

PART 1 - GENERAL

1.1 GENERAL PROGRESS PAYMENT REQUIREMENTS

- A. A Payment for Work performed shall be in accordance with installed quantities as assessed in comparison to the Schedule of Values and the Construction Schedule. Engineer will verify measurements and quantities. Each activity necessary to manage and complete the Work is identified on the Contract schedules. Each activity will be assigned its respective value, a portion of the Contract Price, as shown on the Schedule of Values (Roll-up), and detailed cost loaded activity schedule.
- B. Payment for all lump sum costs and services incurred on this Agreement shall be based on the earned value of Work accomplished during the reporting period. Earned value is determined by the completion percentage of each activity as determined by the Schedule of Values and the Construction Schedule applied to the total value of the activity. No construction activity shall be deemed 100 percent complete until Contractor has completed the physical check out and inspection of the completed Work and has submitted the signed inspection form to Engineer.
- C. Earned value is derived from the current status of Contractor Construction Schedule as determined by the monthly schedule status submittals. Each schedule status submittal is reviewed and approved by Engineer prior to Contractor obtaining approval for the Summary of Earned Values or quantities installed and the Application for Payment.

1.2 APPLICATION FOR PAYMENT

- A. Submit application for payment on Owner's form and be certified by signature of an Authorized Officer of Contractor.
- B. The Application for Payment shall contain all necessary references and attachments that substantiate the invoice for progress payment (e.g., certified payrolls, labor reports, progress schedule data, and Summary of Earned Values). It shall substantiate the invoice for progress payment and shall be preceded or accompanied by the schedule and status data as a condition of payment, in accordance with the Construction Schedule and the Schedule of Values.

1.3 REVIEWS/APPLICATION FOR PAYMENT

- A. Review meetings between Contractor and Engineer will be held weekly and within 7 Days prior to the payment application date designated by Engineer. Three Days prior to the last review meeting of the month, submit an updated schedule and a signed application for payment showing a Summary of Earned Values for the reporting and payment period so that Engineer can compare earned values to available status data. Make any adjustments to the Master Record Documents, updated schedule, and payment applications required by Engineer. Upon completion of the adjustments, Engineer will sign the payment request and forward it to Owner. Engineer will determine payment amounts if agreement with Contractor is not reached.

1.4 PAYMENT FOR SUPPLIES AND MATERIALS

- A. Payment based on the actual cost of supplies, materials and equipment on hand shall be made by Owner with a paid invoice. "Actual cost" of materials shall be the invoice amount, and shall not include any costs associated with installation, testing, etc. Contractor shall be entitled to payment of the actual cost of supplies, materials, and equipment only if it (1) presents an invoice to Owner with the application for payment and (2) states in the application for payment that the materials have been delivered and stored in the time and manner specified in the contract between Contractor and his Supplier or Subcontractor. If Contractor fails to comply with those conditions, Owner may withhold payment in accordance with the provisions. Owner expressly reserves the right to withhold payment until Contractor presents to Owner a paid invoice, or some other proof of payment satisfactory to Owner, for Owner's use in verifying the accuracy of the actual cost of the supplies, materials or equipment. Payment for supplies, materials or equipment on hand does not alter the responsibility of Contractor for all supplies, materials and equipment until Final Acceptance of the Work.

1.5 MEASUREMENT AND PAYMENT

- A. Unit prices or lump sum amounts to include full compensation for furnishing all labor, materials, products, tools, equipment, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit, taxes, and doing all work shown on the Drawings, defined in the Specifications, and/or stipulated herein.
- B. Payment covers the cost of incidental work which includes: progress schedule; QC program; safety procedure plan; maintaining construction schedule; submittals; manufacturer's service in accordance with the specifications; dust control; irrigation, surface water and drainage management; pipeline connections except as identified specifically in other bid items; coordination with property owners, businesses, contractors, and government agencies; all provisions required to provide and maintain access to all properties affected by construction operations; construction surveying; saw cutting, removal, and disposal of existing trench pavement; unclassified excavation; pot hole excavations; trench excavations; structure excavations; removal and disposal of waste materials; trench dewatering; pipe zone material; select import fill material; compaction of backfill materials; fees from the County Surveyor for monument restoration; untreated base course at depth indicated; hauling and stockpiling of materials and equipment; stockpiling and restoration of topsoil in unimproved areas; protection and support of existing surface and subsurface features; providing assistance to other utility companies in locating and relocating service laterals, as needed; replacement and restoration of existing utilities (mains and services) and other items damaged by the CONTRACTOR's operations; removal and replacement of landscape materials and irrigation systems equal to or better than existing if damaged by the CONTRACTOR's operations; and all other necessary work, to install the Work complete in place.
- C. Contractor's shall note that the information provided in this section is intended for use as a general description of the breakdown of work to be included in the Bid Schedule. **The following descriptions are NOT intended to represent a complete listing of all elements of Work required by the Contract Documents.** It is the Contractor's responsibility to make sure that costs for all Work required in the plans and specifications is accounted for in the appropriate Bid Items, whether or not specifically described in this Measurement and

Payment section. The Owner is not responsible for Contractor's failure to properly coordinate with Subcontractors and Suppliers regarding the breakdown of Work in these Contract Documents.

D. BID SCHEDULE A & B, Measurement and Payment to be as follows:

1. Bid Item No. 1 - Mobilization, Demobilization, Temporary Facilities and Administrative Items

- a. Measurement: Mobilization, Demobilization, Temporary Facilities, and Administrative Items will be paid for on a Lump Sum basis. Payment shall be made on a percent complete basis as described below.
- b. Payment: Cost of mobilization and demobilization including, but not limited to: bonds and insurance; contract administration; mobilization; demobilization; videotaping site conditions prior to construction; furnishing and erecting temporary construction facilities; project signs, and obtaining any additional permits not already obtained by the OWNER. This pay item shall constitute full compensation for all labor, equipment, tools, supplies and materials required to complete this portion of the Work for this construction project.
- c. For purposes of payment, this bid item shall be paid for on a percent complete basis. The lump sum bid price for this bid item shall not exceed 10 percent of the total bid price. Any bid proposal for mobilization, demobilization, temporary facilities, and administration items that is greater than 10 percent will be adjusted to the maximum amount of 10 percent of the total bid. The bid item so adjusted will be the Contractor's bid for that item, and the Contractor's bid for the project will be recalculated and the revised total used to compare with other bidders to determine the low bid. The OWNER will pay the adjusted lump sum price. Bid item will be paid on a percent complete basis as summarized in the following table:

Partial Payment	Amount	When Paid
1 st	50 percent of bid item lump sum.	With 1 st pay request
2 nd	40 percent of bid item lump sum.	With 1 st pay request following completion of 10 percent of contract
3 rd	10 percent of bid item lump sum (for demobilization).	With 1 st pay request following completion of 90 percent of contract

2. Bid Item No. 2 - 12600 South Trenchless Crossing, Complete

- a. Measurement: Payment for the Trenchless Crossing at 12600 South will be made on a Lump Sum basis.
- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for the 12600 South Trenchless Crossing; including installation of casing pipe and all items for interaction between carrier and casing pipe; potholing of utilities; permits from UDOT and other required entities; clearing and stockpiling of topsoil and landscaping rock, excavation, shoring and

backfilling of the pit areas; trenchless methods and all required items to complete the work required for the trenchless crossing, Complete.

- c. No Payment for 66-inch Southwest Aqueduct, or restoration of private properties, these items are to be paid under separate bid items.

3. Bid Item No. 3 – Jordan Aqueduct Trenchless Crossing, Complete

- a. Measurement: Payment for the Trenchless Crossing at the Jordan Aqueduct will be made on a Lump Sum basis.

- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for the Jordan Aqueduct Reach 2 (JA-2) trenchless crossing at 3200 West and 12075 South; including installation of casing pipe and all items for interaction between carrier and casing pipe; potholing of the JA-2 and any utilities; relocation of utilities within the work area; monitoring and protection of the JA-2; traffic control and coordination with residents at the crossing; clearing, excavation, shoring and backfill of the pits; trenchless methods and all required items to complete the work required for the trenchless crossing, Complete.

- c. No Payment for 66-inch Southwest Aqueduct or asphalt restoration, these items are to be paid under separate bid items.

4. Bid Item No. 4 – 11800 South Open Cut Crossing, Complete

- a. Measurement: Payment for the Open Cut Crossing of 11800 South will be made on a Lump Sum basis.

- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for additional costs of installation required for installing the SWA-2 across the 11800 South intersection; including potholing existing SWA-2 and other utilities; additional supports, and protection required for utilities, excavation and shoring; final backfilling of existing utilities; traffic control and all other Work as shown on the plans, Complete.

- c. No Payment for 66-inch and 60-inch Southwest Aqueduct and appurtenances; connection to existing SWA-2 or asphalt restoration. These Items are to be paid under separate bid items.

5. Bid Item No. 5 – 66-inch Southwest Aqueduct Reach 2, Complete - STA 319+46 to STA 365+50, 3200 West

- a. Measurement: Payment for the construction of the 66-inch Southwest Aqueduct Reach 2 will be made on a Lump Sum basis.

- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for the Southwest Aqueduct Reach 2, 66-inch diameter pipe and appurtenances from Station 319+46 at the Temporary Test Head near 13400 South to Station 365+50 at the entrance to the Cedar Brae park; including furnishing and installing all pipe materials, fittings, and appurtenances between the stations shown and within the public rights-of-way, permanent easements, and temporary construction easements provided; potholing existing utilities; site condition and construction progress surveys; asphalt sawcutting and removal; temporary asphalt as necessary; traffic controls; temporary security fencing; excavation including all sheeting, shoring and bracing of excavations as required; rock removal; dewatering; furnishing and installing the pipe and all appurtenances at the strength and wall thickness shown; welding and joint preparation, coating and lining repairs; trench cutoff walls and trench plugs, as necessary; furnishing and installing pipe marking tape and markers; waterway replacement; pipe zone and trench

backfill materials; and balance of all Work required for installation of the 66-inch Southwest Aqueduct as shown on the plans, Complete.

- c. No Payment under this item for asphalt pavement restoration; construction of air valve vaults or the connection to existing SWA-2, cleaning, disinfection and hydrostatic testing of the completed pipeline. These Items are to be paid under separate bid items.

6. Bid Item No. 6 – 66-inch Southwest Aqueduct Reach 2, Complete - STA 365+50 to STA 389+20, Cedar Brae Park, 12600 South Crossing, Private Properties and Unimproved Area

a. Measurement: Payment for the construction of the 66-inch Southwest Aqueduct Reach 2 will be made on a Lump Sum basis.

b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for the Southwest Aqueduct Reach 2, 66-inch diameter pipe and appurtenances from Station 365+50 at the Cedar Brae Park to the Station 389+20 at Emery Forest Lane; including furnishing and installing all pipe materials, fittings, and appurtenances between the stations shown, including installation of carrier pipe in casing, within the public rights-of-way, permanent easements, and temporary construction easements provided; potholing existing utilities; site condition and construction progress surveys; clearing and grubbing and stock piling topsoil; asphalt sawcutting and removal; temporary asphalt as required; concrete flatwork sawcutting, removal and restoration as indicated on drawings; removal and restoration of existing fencing and gates, including new vinyl access 4 ft gate at private property 3176 W Durham Woods Way; utility service line restoration as required, temporary security fencing with privacy devices; excavation including all sheeting, shoring and bracing of excavations as required; rock removal; dewatering; furnishing and installing the pipe and all appurtenances at the strength and wall thickness shown; welding and joint preparation, coating and lining repairs; trench cutoff walls and trench plugs, as necessary; furnishing and installing pipe marking tape and markers; **6-inch drain, including buried valves with valve box, and minor blowoff drain; (ADD.1)** curb and gutter, sidewalk and parkstrip replacement; pipe zone and trench backfill materials; compaction and grading to final surface elevation for final restoration by others; public involvement with residents as necessary, surface improvement removal and restoration, and balance of all Work required for installation of the 66-inch Southwest Aqueduct as shown on the plans, Complete.

- c. No Payment under this item for utility relocation; cost to cure restoration of private properties; asphalt pavement restoration; construction of air valve vaults; cleaning, disinfection and hydrostatic testing. These Items are to be paid under separate bid items.

7. Bid Item No. 7 – 66-inch Southwest Aqueduct Reach 2, Complete - STA 389+20 to STA 404+00, 3200 West

a. Measurement: Payment for the construction of the 66-inch Southwest Aqueduct Reach 2 will be made on a Lump Sum basis.

b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for the Southwest Aqueduct Reach 2, 66-inch diameter pipe and appurtenances from Station 389+20 at Emery Forest Ln to Station 404+00; including furnishing and installing all pipe materials, fittings, and appurtenances between the stations shown and within the public rights-of-

way, permanent easements, and temporary construction easements provided; site condition and construction progress surveys; asphalt sawcutting and removal; temporary asphalt as necessary; traffic controls; temporary security fencing; excavation including all sheeting, shoring and bracing of excavations as required; large rock and boulder removal; dewatering; utility service line restoration as required; furnishing and installing the pipe and all appurtenances at the strength and wall thickness shown; welding and joint preparation, coating and lining repairs; trench cutoff walls and trench plugs, as necessary; furnishing and installing pipe marking tape and markers; pipe zone and trench backfill materials; and balance of all Work required for installation of the 66-inch Southwest Aqueduct as shown on the plans, Complete.

- c. No Payment under this item for JBID sewer relocation; asphalt pavement restoration; cleaning, disinfection and hydrostatic testing. These Items are to be paid under separate bid items

8. Bid Item No. 8 – 66-inch Southwest Aqueduct Reach 2, Complete - STA 404+00 to STA 424+00, 3200 West

- a. Measurement: Payment for the construction of the 66-inch Southwest Aqueduct Reach 2 will be made on a Lump Sum basis.
- b. Payment: Payment will be made on the basis of the Contractor’s lump sum bid for the Southwest Aqueduct Reach 2, 66-inch diameter pipe and appurtenances from Station 404+00 to Station 424+00 at the Temporary Test Head at the south side of 11800 South; including furnishing and installing all pipe materials, fittings, and appurtenances between the stations shown; including installation of carrier pipe in casing at Jordan Aqueduct crossing, within the public rights-of-way, permanent easements, and temporary construction easements provided; potholing existing JA-2 and other utilities; site condition and construction progress surveys; asphalt sawcutting and removal; temporary asphalt as necessary; traffic controls; temporary security fencing; excavation including all sheeting, shoring and bracing of excavations as required; large rock and boulder removal; dewatering; utility service line restoration as required; furnishing and installing the pipe and all appurtenances at the strength and wall thickness shown; welding and joint preparation, coating and lining repairs; trench cutoff walls and trench plugs, as necessary; furnishing and installing pipe marking tape and markers; curb and gutter, waterways, sidewalk and parkstrip replacement; 8-inch drain, including buried valves, blowoff structure and connection to storm drain; pipe zone and trench backfill materials; protection of existing services to residents or relocation as required, coordinate with utility Owner; and balance of all Work required for installation of the 66-inch Southwest Aqueduct as shown on the plans, Complete.
- c. No Payment under this item for asphalt pavement restoration; construction of air valve vaults; and cleaning, disinfection and hydrostatic testing of the completed pipeline. These Items are to be paid under separate bid items.

9. Bid Item No. 9 – Trench Stabilization Material, As Directed

- a. Measurement: Measurement of trench stabilization material will be based upon Unit Price per in place cubic yard measured from the dimensions of the trench prior to installation of the material.
- b. Payment: Payment for trench stabilization material will include stabilization material with geotextile; additional over excavation of the

trench; dewatering; furnishing, transporting, and installing trench stabilization in accordance with the specifications. Trench stabilization must be authorized in advance by the Engineer.

10. Bid Item No. 10 – SWA-2 Testing, Disinfection and Connections to Existing SWA, Complete

- a. Measurement: Payment for the testing, disinfection and final connections of the 66-inch Southwest Aqueduct Reach 2 will be made on a Lump Sum basis.
- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for the successful hydrostatic testing and disinfection of the pipeline, including drains and final connections of the new Southwest Aqueduct Reach 2 to the existing SWA-2, 66-inch diameter pipe and appurtenances; with connections from Station 319+36 to Station 319+46 at 13400 South and from Station 424+00 to Station 424+82 at 11800 South; including furnishing and installing all pipe materials, fittings, and appurtenances between the stations shown and within the public rights-of-way, permanent easements, and temporary construction easements provided; potholing existing SWA and other utilities; site condition and construction progress surveys; asphalt sawcutting and removal; temporary asphalt as necessary; excavation including all sheeting, shoring and bracing of excavations as required; large rock and boulder removal; dewatering; furnishing and installing the pipe and all appurtenances at the strength and wall thickness shown; welding and joint preparation, coating and lining repairs, including repairs to the 11800 South existing SWA-2 previously damaged; trench cutoff walls and trench plugs, as necessary; furnishing and installing pipe marking tape and markers; pipe zone and trench backfill materials; and balance of all Work required for final connections of the 66-inch Southwest Aqueduct as shown on the plans, Complete.
- c. No Payment under this item for asphalt pavement restoration, to be paid under separate bid item.

11. Bid Item No. 11 – Cathodic Protection, Complete

- a. Measurement: Payment for the cathodic protection work will be made on a Lump Sum basis.
- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for furnishing and installing all cathodic protection materials for the SWA-2. Including test stations, wires, connections, terminal boards, post mounts, concrete slabs, labels, and fittings to install a complete system; adding dielectric union to SWA-1 vault; restore the parkstrip or area where test station is installed back to original condition, including all area outside pavement restoration.
- c. No payment for asphalt pavement restoration, these items are to be paid under separate bid items.

12. Bid Item No. 12 – 12600 South Vault Improvements, Complete

- a. Measurement: Payment for the work at the 12600 South JA Mainline Valve and Turnout Structure will be made on a Lump Sum basis.
- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for construction and improvements to the existing Jordan Aqueduct Mainline Valve and Turnout vault structure at the 12600 South site. Including site condition and construction progress surveys; furnishing and installing all materials and piping, including the 24-inch buried pipe from the SWA-2 turnout to existing wall spool piece; including modifications to existing wall spool piece; vault improvements including new hatch, platform access and

ladder modifications; installation of 24-inch pipe, butterfly valves and all fittings and appurtenances for connection to JA-2; 10-inch interconnection pipe and all fittings and appurtenances with new connection to existing 24-inch pipe; all mechanical items, supports and miscellaneous metals; any necessary repairs to existing lining and coatings; relocation of existing power meter, service disconnect and antenna; modifications to existing and new instrumentation for JA and SWA; installation of new electrical and controls, lighting, panels and all work for complete electrical and instrumentation; all earthwork, shoring; protection of existing structures; site grading and surface restoration; shutdown and draining of JA-2, JA-1, (ADD.1) cleaning, testing, and disinfection; and balance of all Work required at the 12600 South Vault site as shown on the plans, Complete.

- c. No payment for asphalt restoration included in this bid item, to be paid under separate item for asphalt restoration.

13. Bid Item No. 13 – 12600 South Vault Improvements, Items Shaded for Schedule Constraints

- a. Measurement: Payment for additional work required by installation of the items identified by blue highlight/shading at the 12600 South JA Mainline Valve and Turnout Structure due to schedule restraints of JA shutdown (Schedule B awarded), will be made on a Lump Sum basis.
- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for the additional work required to install and complete the 12600 South Vault due to schedule restraints of the JA shutdown for Schedule B work. The items identified by shading and all required additional welding and materials and time for adjustments to install these items at a separate time during the shutdown of the Jordan Aqueduct, including modifications to connections, additional materials, fittings, appurtenances or other items for connections; supports, miscellaneous metals; repairs to linings and coatings; or any other items to complete the work during the required time restraints.

14. Bid Item No. 14 – 13400 South Vault Improvements, Complete

- a. Measurement: Payment for the work at the existing 13400 South SWA-2 Mainline Valve Vault will be made on a Lump Sum basis.
- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for construction and improvements to the existing Southwest Aqueduct Mainline Valve vault structure at 3200 West and south side of 13400 South. Including furnishing and installing all materials and piping for modifications to existing and new instrumentation for JA and SWA; installation of new controls and all work for complete system; protection of existing structures; cleaning, testing, and disinfection; and balance of all Work required at the 13400 South Vault site as shown on the plans, Complete.

15. Bid Item No. 15 – Air Valve/Maintenance Structure

- a. Measurement: Payment for Air Valve/Maintenance Structure shall be made on a per Each basis for each structure.
- b. Payment: Payment shall constitute full compensation for site condition and construction progress surveys; excavation and backfill; construction of the structure; furnishing and installing all pipe materials, fabricated outlet and hinged access manway, valves, insulating flanges, bonding for cathodic protection, appurtenances, fittings, air vents and vent pads, and miscellaneous metals; protective coatings; surface restoration of curb and gutter, parkstrips, and sidewalks as indicated; new gravel access to vault at

Cedar Brae park; and all other work shown and specified to complete each structure.

- c. Asphalt and other surface restoration, testing and disinfection to occur with mainline and to be paid under separate Bid items.

16. Bid Item No. 16 – Drain/Maintenance Structure

- a. Measurement: Payment for Drain/Maintenance Structure shall be made on a lump sum basis.
- b. Payment: Payment shall constitute full compensation for site condition and construction progress surveys; excavation and backfill; potholing to locate existing tie-in pipe; construction of the structure including the minor drain; furnishing and installing all pipe materials, fabricated outlet and hinged access manway, valves, insulating flanges, bonding for cathodic protection, appurtenances, fittings, air vents, miscellaneous metals; protective coatings; surface restoration of the curb and gutter and sidewalk; additional flatwork and all other work shown and specified.
- c. Asphalt surface restoration, testing and disinfection to occur with mainline and to be paid under separate Bid items.

17. Bid Item No. 17 – Sanitary Sewer Manhole and Sewer Relocation, Complete

- a. Measurement: Payment for relocation of sewer manhole and sewer shall be made on a lump sum basis.
- b. Payment: Payment shall constitute full compensation for site conditions and construction progress surveys; coordination with utility owner; permits required by utility owner; traffic controls; sewer bypassing, including plan for approval by utility owner; excavation and backfill; 8-inch diameter sewer pipe, fittings and connections, flowable fill; sewer casing; furnishing and installing new manhole sections and base, grade rings, cover and frame, grout, and other items for complete manhole and pipe installation; including sloping and forming of trough; cleaning, testing and inspection by utility owner; additional surface restoration outside of 3200 West specific to sewer relocation and all other work necessary to furnish and install manhole, casing and sewer in accordance with Jordan Basin Improvement District standards.

18. Bid Item No. 18 – 12-inch Waterline Loop Over SWA-2, Riverton City Standards

- a. Measurement: Payment for looping of 12-inch waterline over the aqueduct will be made on a per Each basis for each loop.
- b. Payment: Payment shall constitute full compensation for site conditions and construction progress surveys; coordination with utility owner; traffic controls; site preparation, trench excavation and backfill; furnishing and installing new 12-inch diameter water pipe loop over the new SWA -2, including thrust blocking; fittings and appurtenances; service valves, air valve with venting and connections. The Work includes cleaning and testing of the pipeline, surface restoration specific to looping appurtenances and all other work necessary to furnish and install a complete loop in accordance with Riverton City standards.

19. Bid Item No. 19 – 10-inch Pressurized Loop Over SWA-2, Riverton City Standards

- a. Measurement: Payment for looping of 10-inch pressurized irrigation pipeline over the aqueduct will be made on a per Each basis for each loop.
- b. Payment: Payment shall constitute full compensation for site conditions and construction progress surveys; coordination with utility owner; traffic controls; site preparation, trench excavation and backfill; furnishing and

installing new 10-inch diameter irrigation pipe loop over the new SWA -2, including thrust blocking; fittings and appurtenances; buried service valves, air valve and connections. The Work includes cleaning and testing of the pipeline, surface restoration specific to looping appurtenances and all other work necessary to furnish and install a complete loop in accordance with Riverton City standards.

20. Bid Item No. 20 – Asphalt Restoration, 3200 West

- a. Measurement: Payment for the reconstruction of the asphalt surface will be made on a Cubic Yard basis.
- b. Payment: Payment includes all Work associated with reconstruction of the asphalt road surface, for the width of the trench, limited at 16 feet wide; Work will include, but not be limited to, full depth removal of all existing asphalt pavement; excavation and hauling of unsuitable materials; subgrade preparation and grading; installation of new 8-inch structural road base and total depth of 4-inch minimum asphalt pavement section – to be coordinated with 2-inch Mill and Overlay for final depth, in accordance with Riverton City Standards; grade adjustment and replacement of utility manholes, valve boxes and survey monuments; concrete collars; striping and marking of the new pavement surface; and all other work shown and specified within the pay limits.

21. Bid Item No. 21 – Asphalt Restoration, 11800 South

- a. Measurement: Payment for the reconstruction of the asphalt road surface along 11800 South will be made on a Cubic Yard basis.
- b. Payment: Payment includes all Work associated with reconstruction of the asphalt road surface, extending from the curb and gutter of 11800 South and the extents of the intersection of 3200 West as shown on the plans. Work will include, but not be limited to, full depth removal of all existing asphalt pavement; excavation and hauling of unsuitable materials; subgrade preparation and grading; installation of new 8-inch structural road base and 6-inch asphalt pavement section in accordance with South Jordan and Riverton City Standards; grade adjustment and replacement of utility manholes, valve boxes and survey monuments; concrete collars; striping and marking of the new pavement surface; and all other work shown and specified within the lump sum pay limits.

22. Bid Item No. 22 – 2” Mill and Overlay, 3200 West

- a. Measurement: Measurement for asphalt pavement mill and overlay Work shall be made on a Unit Price basis by the square foot as calculated by the Engineer based on the area of the overlay as measured in the field to the limits indicated on the Plans.
- b. Payment: Payment shall constitute full compensation for furnishing, placing, and compacting asphalt overlay in accordance with Riverton City Standards including, but not limited to asphalt milling and removal; edge grinding; asphalt; tack coat; crack seal; asphalt testing; adjusting all street fixtures not specified elsewhere to final grade; concrete; restriping; and marking of the new pavement.

23. Bid Item No. 23 –Irrigation System Relocation, 12495 South to 12353 South

- a. Measurement: Payment for relocation of the existing irrigation line, structures, services and appurtenances shall be made on a lump sum basis.
- b. Payment: Payment for relocation of irrigation system north of 12600 South in residential backyards shall constitute full compensation for survey and

investigation to locate the existing line and be able to provide the same level of service after relocation; removal and disposal of existing utility materials, including abandonment of the storm drain currently connected to the irrigation system at property 12397 South; furnishing and installing 18" C-900 DR25 pipe materials, appurtenances, and fittings to match existing service; furnishing and installing of new buried valves, service connections, concrete structures and miscellaneous metals; trench backfill and bringing to grade; connections to the existing irrigation system at project boundaries; restoration of any additional surface features disturbed during irrigation relocation that are outside the Southwest Aqueduct construction limits; cleaning and all other work shown and specified to complete the relocation of the irrigation system, complete, and return to original operating conditions.

24. Bid Item No. 24 – Contractor Excavation and Backfill to Support Utility Relocation of Communication Utility Conflicts north of 12600 South, CenturyLink/Lumen

- a. Measurement: Lump Sum Payment for the excavation, backfill and coordination efforts for the temporary and permanent relocation of the existing communications line.
- b. Payment: Payment for coordination with utility company for them to provide relocation of communication conflicts north of 12600 South in residential backyards shall be based upon actual costs of relocations provided by CenturyLink/Lumen as submitted by the Contractor, including allowable markup for administration of Work. Contractor shall be responsible for coordinating and scheduling work with utility company, including temporary and final relocations of the utility and all required service boxes. Contractor is to provide coordination and excavation for installation of the final utility relocation in the same trench with the irrigation line and Contractor is to provide backfill materials and compaction for the communication line in conjunction with the irrigation line and bring excavation back to final grade.
- c. This item does not include a direct payment to CenturyLink for their utility relocation cable/conduit work. JWCD will directly pay CenturyLink for their portion of the relocation work. This bid item is for payment of the excavation, backfill and coordination effort required by the SWA-02 contractor to facilitate CenturyLink's temporary and permanent relocation of the communication utility north of 12600 South.

25. Bid Item No. 25 – 11400 South Vault Improvements, Complete

- a. Measurement: Payment for the construction of the 11400 South Mainline Valve Vault and miscellaneous 11400 South site Improvements will be made on a Lump Sum basis.
- b. Payment: Payment will be made on the basis of the Contractor's lump sum bid for construction of the vault and improvements to the existing Jordan Aqueduct 11400 South site. Including site condition and construction progress surveys; furnishing and installing all materials and piping, construction of the addition to the valve vault, including structural improvements; installation of the 78-inch butterfly valve and all appurtenances; 36-inch butterfly valve and all appurtenances; all mechanical items and miscellaneous metals; any necessary repairs to existing lining and coatings; installation of all electrical and controls, lighting and power service panels; electrical service connection; all earthwork, shoring; protection of existing structures; site grading and surface restoration; connections with existing pipelines; cleaning, testing, and disinfection; drain pipeline, interior

butt-strap welding of Jordan aqueduct joints, drain pipeline and canal lining for drain blowoff, 11400south existing vault modifications, all asphalt, curb gutter, landscape, and surface restoration for the site complete, and balance of all Work required at the 11400 South Vault site as shown on the plans, Complete.

26. Bid Item No. 26 - Allowance

- a. Measurement: Include Bid Allowance provided. Final payment will be based upon actual costs.
- b. Payment: Payment for permits shall be based upon actual costs as submitted by the Contractor, markup for administration work is not allowed. Bid item reimbursement will be paid upon proof of Contractor's permit fee payment has been submitted. Contractor shall be responsible for coordinating all work for the permits and complying with the permit requirements. ^(ADD.1)

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

ATTACHMENT 3 REVISED DRAWINGS

GENERAL STRUCTURAL NOTES

GENERAL

- THE SPECIFICATIONS AND REQUIREMENTS INDICATED ON THIS SHEET ARE INTENDED AS A BASIC SUMMARY OF THE MATERIAL CONSTRUCTION AND INSPECTION REQUIREMENTS FOR THIS PROJECT. ADDITIONAL REQUIREMENTS ARE GIVEN IN THE PROJECT SPECIFICATIONS. IN THE EVENT OF A CONFLICT BETWEEN THESE GENERAL NOTES AND THE REQUIREMENTS GIVEN IN THE PROJECT SPECIFICATIONS, THE ENGINEER SHALL BE CONTACTED TO DETERMINE WHICH PROVISION GOVERNS.
- FOR LOCATION AND DIMENSIONS OF SLEEVES, CURBS, OPENINGS, AND DEPRESSIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS, SEE ARCHITECTURAL, CIVIL, MECHANICAL, AND ELECTRICAL DRAWINGS. THE CONTRACTOR SHALL VERIFY AND COORDINATE PENETRATIONS SHOWN ON THE OTHER PROJECT DRAWINGS, WHETHER THEY ARE SHOWN ON THE STRUCTURAL DRAWINGS OR NOT.
- EMBEDDED ITEMS, SUCH AS PIPE SLEEVES, CONDUITS, AND INSERTS SHALL ALL BE RIGIDLY INSTALLED IN PLACE BEFORE CONCRETE IS POURED. SEE ARCHITECTURAL, CIVIL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ITEMS REQUIRING SLEEVES AND EMBEDMENTS IN CONCRETE, WHICH ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, DUCTS, ETC. UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE ENGINEER.
- DESIGN DETAILS AS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND APPLY TO ALL SIMILAR SITUATIONS OCCURRING ON THE PROJECT, WHETHER OR NOT THEY ARE SPECIFICALLY REFERENCED IN EACH LOCATION. CONSULT THE ENGINEER FOR CONCURRENCE PRIOR TO CONSTRUCTION.
- SUBMIT DRAWINGS AND RECEIVE REVIEW OF ALL STRUCTURAL RELATED SHOP DRAWINGS PRIOR TO ERECTION OR CONSTRUCTION.
- APPLICABLE BUILDING CODE FOR THE PROJECT IS THE 2021 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC). ANY CHANGES MADE DURING CONSTRUCTION TO THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE APPROVED BY THE ENGINEER AND SHALL BE RESUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL AS AN AMENDED SET OF CONSTRUCTION DOCUMENTS.

SITE PREPARATION NOTES

- SITE PREPARATION NOTES FOR THIS PROJECT ARE BASED ON RECOMMENDATIONS CONTAINED IN A SOILS REPORT BY RB&G ENGINEERING, INC., DATED JUNE 2024, ALONG WITH ANY ADDENDA THERETO, WHICH HAVE BEEN PREPARED FOR THIS PROJECT. A REFERENCE COPY IS AVAILABLE UPON REQUEST FROM THE ENGINEER
- FOOTINGS AND FOUNDATIONS AS SHOWN ON DRAWINGS MAY VARY IF THE SUBSURFACE SOIL CONDITIONS VARY FROM THOSE FOUND IN THE SOILS REPORT.
- ALL SURFACE MATERIALS SUCH AS VEGETATION (INCLUDING THE ROOT ZONE), TOPSOIL, DEBRIS, NON-ENGINEERED FILL, BOULDERS LARGER THAN 12" AND ANY OTHER DELETERIOUS MATERIALS SHALL BE REMOVED FROM WITHIN THE BUILDING PAD AREA. THESE STRIPPED SOILS ARE CONSIDERED UNSUITABLE FOR STRUCTURAL FILL.
- THE SUBGRADE SHALL BE PROOF ROLLED WITH HEAVY RUBBER-TIRED EQUIPMENT. SOFT AREAS MAY BE STABILIZED BY OVER-EXCAVATING TO A DEPTH OF 12-INCHES, PLACING A 4-OUNCE NON-WOVEN GEOTEXTILE SEPARATION FABRIC AND A GEOGRID (OR ALTERNATIVELY A HIGHER-STRENGTH WOVEN GEOTEXTILE APPROVED BY THE ENGINEER) AND BACKFILLING WITH STRUCTURAL FILL COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 AND SHALL BE COMPACTED AT A MOISTURE CONTENT WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT.
- THE OWNER'S GEOTECHNICAL ENGINEER OR SPECIAL INSPECTOR SHALL OBSERVE THE NATURAL SOILS AT THE TIME OF FOOTING EXCAVATION TO DETERMINE THE SUITABILITY OF THE NATURAL SOILS FOR SUPPORTING THE FOUNDATIONS.
- STRUCTURAL FILL SHALL CONSIST OF WELL GRADED GRANULAR MATERIAL WITH A MAXIMUM SIZE OF 3 INCHES, A MINIMUM OF 70% PASSING THE 3/4" SIEVE, A MAXIMUM OF 50% PASSING THE NO. 4 SIEVE, AND BETWEEN 10 AND 25% PASSING THE NO. 200 SIEVE. ALL FINES SHALL HAVE A LIQUID LIMIT LESS THAN 20 AND A PLASTICITY INDEX LESS THAN 7.
- STRUCTURAL FILL BELOW FOOTINGS AND BELOW SLAB ON GRADE SHALL BE PLACED IN MAXIMUM 8 INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557 AND SHALL BE COMPACTED AT A MOISTURE CONTENT WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT.
- BACKFILL AROUND WALLS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D-1557.
- SLABS ON GRADE SHALL BE UNDERLAIN BY A MINIMUM OF 4" OF FREE-DRAINING GRANULAR MATERIAL. GRANULAR MATERIAL SHALL BE PLACED UPON PROPERLY PREPARED SUBGRADE AS DESCRIBED ABOVE.
- COMPACTION OF STRUCTURAL FILL SHALL BE OBSERVED AND TESTED BY OWNER'S TESTING LABORATORY TO ENSURE THAT THE ABOVE REQUIREMENTS ARE ACHIEVED.

FORMWORK, SHORING, AND BRACING

- CONFORM TO ACI 347 "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK" FOR DESIGN AND CONSTRUCTION OF CONCRETE FORMWORK AND BRACING. CONTRACTOR IS RESPONSIBLE FOR DESIGN AND CONSTRUCTION OF FORMWORK AND BRACING.
- STRUCTURES AS SHOWN ON THESE DRAWINGS INDICATE THE FINAL CONDITION ONLY AND DO NOT INCLUDE THE NECESSARY COMPONENTS OR EQUIPMENT FOR STRUCTURAL STABILITY DURING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR WORK RELATED TO CONSTRUCTION ERECTION METHODS, BRACING, SHORING, RIGGING, GUYS, SCAFFOLDING, FORMWORK, AND OTHER WORK AIDS IN PLACE TO SAFELY PERFORM THE WORK SHOWN.
- TEMPORARY SHORING TO REMAIN IN PLACE UNTIL ELEVATED CONCRETE SLABS HAVE REACHED 28-DAY DESIGN STRENGTH AS DETERMINED BY CYLINDER BREAKS.

FOOTINGS

- NO FOOTINGS SHALL BE PLACED IN WATER OR ON FROZEN GROUND.

CONCRETE

- ALL CONCRETE CONSTRUCTION TO CONFORM TO ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," INCLUDING BAR BENDS AND HOOKS UNLESS SPECIFICALLY DETAILED OTHERWISE ON THESE DRAWINGS.
- THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 4,500 PSI.
- A STATEMENT OF MIX DESIGN FOR ALL CONCRETE SHALL BE SUBMITTED TO AND REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO COMMENCING WORK.
- THE VARIOUS CONCRETE ITEMS ARE ASSIGNED TO THE FOLLOWING EXPOSURE CATEGORIES AND CLASSES PER SECTION 19.3 OF ACI 318-19:

FOOTINGS.....	F1, S1, W1, C1
FOUNDATION WALLS.....	F1, S1, W1, C1
EXTERIOR FLAT WORK.....	F3, S1, W1, C1
- NON-STRUCTURAL ELEMENTS, SUCH AS ENCASEMENTS, CURBS, SIDEWALKS AND LEAN CONCRETE TO HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- USE CEMENT CONFORMING TO ASTM C595, TYPE II (10) (HS).
- ALL CONSTRUCTION JOINTS, EXPANSION JOINTS, AND OTHER TYPES OF JOINTS, OTHER THAN THOSE SPECIFICALLY SHOWN ON THE DRAWINGS TO BE APPROVED BY THE ENGINEER PRIOR TO PLACING CONCRETE.
- INSTALL CONTINUOUS WATERSTOPS IN ALL EXPANSION, CONTRACTION, CONTROL AND CONSTRUCTION JOINTS OF WATER-HOLDING BASINS, CHANNELS, AND BELOW GRADE STRUCTURES UNLESS SPECIFICALLY NOTED OTHERWISE.
- PROVIDE 3/4-INCH CHAMFER AT ALL EXPOSED EDGES AND CORNERS UNLESS NOTED OTHERWISE.
- BEFORE PLACING THE SECOND POUR AT CONSTRUCTION JOINTS REMOVE LAITANCE, THOROUGHLY CLEAN AND ROUGHEN ALL JOINT SURFACES TO MINIMUM AMPLITUDE OF 1/4 INCH.
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, REINFORCE CONCRETE WALLS AS FOLLOWS:

WIDTH	HORIZ REINF	VERT REINF
10" WALL	#5 @ 12", EACH FACE	#5 @ 12", EACH FACE

REINFORCEMENT STEEL

- PROVIDE REINFORCEMENT STEEL CONFORMING TO ASTM A615, GRADE 60 EXCEPT WHERE WELDING IS PERMITTED BY THE ENGINEER. PROVIDE STEEL CONFORMING TO ASTM A706 WHEN WELDING IS PERMITTED.
- PROVIDE WELDED WIRE FABRIC CONFORMING TO ASTM A185 FOR PLAIN REINFORCEMENT AND ASTM A497 FOR DEFORMED.
- DIMENSIONS GIVEN FOR REINFORCING BARS ARE TO BAR CENTERS UNLESS NOTED OTHERWISE. BAR COVER IS THE CLEAR DISTANCE BETWEEN BAR AND CONCRETE SURFACE. CLEARANCE FOR REINFORCEMENT BARS PER THE FOLLOWING UNLESS SHOWN OTHERWISE:

WHEN PLACED AGAINST GROUND.....	3"
FORMED SURFACES IN CONTACT WITH THE GROUND	
OR EXPOSED TO THE WEATHER.....	2"
INTERIOR WALL SURFACES.....	1"
ALL OTHER CONCRETE SURFACES.....	2"
- CONTINUE WALL CORNER AND WALL INTERSECTION REINFORCEMENT BARS AROUND CORNERS AND THROUGH COLUMNS OR PILASTERS. EXTEND REINFORCEMENT INTO CONNECTING WALLS AND LAP ON THE OPPOSITE FACE OF THE CONNECTING WALLS.
- UNLESS OTHERWISE NOTED, ALL HOOKS SHOWN ARE 90° STANDARD HOOK AS DEFINED IN ACI 318-19.
- LAP VERTICAL WALL BARS WITH DOWELS FROM BELOW AND EXTEND THROUGH SLABS ABOVE TO TOP FACE. BEND AND/OR LAP TO TOP SLAB REINFORCEMENT AS INDICATED.

- UNLESS OTHERWISE INDICATED, CONTRACTOR MAY SPLICE CONTINUOUS SLAB OR LONGITUDINAL BEAM BARS AT LOCATIONS OF HIS CHOOSING, EXCEPT THAT TOP BAR SPLICES ARE TO BE LOCATED AT MIDSPAN AND BOTTOM BAR SPLICES ARE TO BE LOCATED AT SUPPORTS. MINIMUM LAP REQUIREMENTS ARE AS FOLLOWS UNLESS OTHERWISE INDICATED.

LAP LENGTHS* - CONCRETE								
BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
CONCRETE DESIGN STRENGTH = 4500 PSI								
LAP LENGTH	1'-7"	2'-0"	2'-4"	3'-4"	3'-9"	4'-10"	5'-9"	7'-0"

*ASSUMES 2" MINIMUM CLEARANCE TO SURFACE

STRUCTURAL STEEL

- UNLESS NOTED OTHERWISE, PROVIDE STRUCTURAL STEEL CONFORMING TO ASTM A36. ROLLED WIDE FLANGE SHAPES TO CONFORM TO ASTM A992. PIPE TO CONFORM TO ASTM A53, TYPE E OR S, GRADE B. STRUCTURAL TUBING TO CONFORM TO ASTM A1085. FABRICATE AND ERECT ALL STRUCTURAL STEEL IN CONFORMANCE WITH AISC SPECIFICATIONS.
- USE A325 OR F1852 BOLTS FOR STEEL TO STEEL CONNECTIONS, F1554 GR36 FOR ANCHOR BOLTS, AND A307 BOLTS FOR ALL OTHER CONNECTIONS (UNLESS SPECIFIED OTHERWISE ON DRAWINGS). USE 3/4" DIAMETER MINIMUM.
- ALL HIGH-STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS." THE TURN-OF-NUT METHOD MAY BE USED. PROVIDE CARBONIZED WASHERS UNDER THE TURNED ELEMENT.
- USE ONLY CERTIFIED WELDERS FOR ALL WELDING WORK. USE FILLER METAL HAVING A MINIMUM TENSILE STRENGTH OF 70 KSI AND PERFORM ALL WORK IN ACCORDANCE WITH THE CURRENT STRUCTURAL WELDING CODE (AWS D1.1).
- UNLESS OTHERWISE NOTED, COAT ALL STRUCTURAL STEEL COMPONENTS WITH PAINT OR OTHER PROTECTIVE COATINGS AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- MINIMUM THICKNESS FOR GUSSET PLATES IS 3/8 INCH.
- STRUCTURAL STEEL, WHICH IS TO BE EMBEDDED INTO CONCRETE TO BE CLEAN AND FREE OF PAINT, OIL, OR DIRT.

STAINLESS STEEL

- WHERE REQUIRED, PROVIDE STAINLESS STEEL SHAPES, PLATES, BARS, AND RODS CONFORMING TO ASTM A866 AND A276, TYPE 316 OR 316L.
- PROVIDE STAINLESS STEEL BOLTS AND NUTS CONFORMING TO ASTM F593 AND F594.

ALUMINUM

- WHERE REQUIRED, PROVIDE ALLOY 6061-T6 FOR ALL ALUMINUM STRUCTURAL MATERIALS.
- COAT ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS AS DETAILED IN THE SPECIFICATIONS TO PREVENT ALUMINUM-CONCRETE REACTION OR ELECTROLYTIC ACTION.
- PERFORM ALUMINUM WELDING TO CONFORM TO THE LATEST STRUCTURAL WELDING CODE (AWS D1.2).

EPOXY ANCHORS

- EPOXY ANCHORS SHALL BE AN ADHESIVE ANCHOR SYSTEM AS LISTED BELOW:

A. HILTI HIT-HY 200 OR HIT-RE 500 V3 FOR CONCRETE
B. HILTI HIT-HY 70 FOR MASONRY
C. ITW RED HEAD C6+, A7+ OR G5
D. SIMPSON AT, SET OR SET-3G
- ANCHOR RODS SHALL BE ASTM A193 GRADE B7, DIAMETER AS INDICATED ON DRAWINGS, THREADED AND GALVANIZED.

LOADING CRITERIA

- BUILDING RISK CATEGORY IV
- DEAD LOAD CALCULATED FROM UNIT WEIGHT
- LIVE LOADS:

STAIRS / PLATFORMS	100 PSF
VAULT ROOF SLABS	150 PSF
- LATERAL EARTH PRESSURE (EFP)

NON SATURATED	62.5 PCF
TRAFFIC SURCHARGE	2 FT OF EARTH
HYDROSTATIC FLUID PRESSURE	62.4 PCF
- SEISMIC LOAD:

SITE CLASS:	D
IMPORTANCE FACTOR:	1.25
SEISMIC DESIGN CATEGORY:	D
SPECTRAL RESPONSE ACCELERATIONS:	
S _s	1.42g
S ₁	1.47g
SPECTRAL RESPONSE COEF:	
S _{DS}	0.97g
S _{D1}	0.70g
- FROST DEPTH: 30 INCHES
- ALLOWABLE SOIL BEARING CAPACITY 1,500 PSF

SPECIAL INSPECTIONS

- SPECIAL INSPECTION IN ACCORDANCE WITH APPROPRIATE SECTIONS OF IBC 2021, CHAPTER 17 IS REQUIRED FOR THE PROJECT.
- THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE, TO THE BUILDING OFFICIAL AND THE ENGINEER.
- AN APPLICATION FOR OFF-SITE FABRICATION SHALL BE SUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO FABRICATION.
- A CERTIFICATE OF COMPLIANCE FOR OFF-SITE FABRICATION SHALL BE COMPLETED AND SUBMITTED TO THE BUILDING OFFICIAL FOR APPROVAL PRIOR TO ERECTION OF PREFABRICATED COMPONENTS. SPECIAL INSPECTION REQUIRED PER IBC SECTION 1704.2.
- SPECIAL INSPECTION ITEMS REQUIRED PER LIST BELOW. CONTINUOUS OR PERIODIC INSPECTIONS IS DESIGNATED WITH A (C) OR (P).

CONCRETE: (TABLE 1705.3, 2021 IBC)

- | | |
|---|---|
| A. PLACING REINFORCEMENT STEEL..... | P |
| B. WELDING REINFORCEMENT STEEL (IF APPROVED BY ENGINEER)..... | C |
| C. PLACING ANCHOR BOLTS AND EMBEDDED PLATES..... | P |
| D. VERIFY APPLICABLE CONCRETE MIX BEING USED..... | C |
| E. SAMPLING CONCRETE FOR STRENGTH TESTS..... | C |
| F. CURING TECHNIQUES AND APPLICATION..... | P |

STEEL: (CHAPTER N, AISC 360-16)

- | | |
|---|---|
| A. VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS, INCLUDING IDENTIFICATION MARKINGS TO CONFIRM ASTM REQUIREMENTS SPECIFIED IN APPROVED CONSTRUCTION DOCUMENTS..... | P |
| B. MANUFACTURERS' CERTIFIED MILL TEST REPORTS..... | P |
| C. FIELD WELDED CONNECTIONS..... | P |
| FILLET WELDS..... | C |
| COMPLETE AND PARTIAL PENETRATION GROOVE WELDS..... | C |
| D. INSTALLATION OF HIGH-STRENGTH BOLTED CONNECTIONS..... | P |
| SNUG-TIGHT BOLTS..... | P |
| SLIP-CRITICAL BOLTS..... | C |

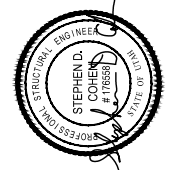
SOILS: (IBC TABLE 1705.6)

- | | |
|---|---|
| A. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE FOR FOOTING SUPPORT..... | P |
| B. VERIFY EXCAVATIONS ARE TO PROPER DEPTH..... | P |
| C. VERIFY PROPERTIES OF COMPACTED FILL PRIOR TO PLACEMENT MEET REQUIREMENTS OF PROJECT..... | P |
| D. PRIOR TO PLACEMENT OF COMPACTED FILL OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY..... | P |
| E. VERIFY PROPER USE OF COMPACTED FILL INCLUDING PROPER MATERIALS, COMPACTION DENSITIES AND LIFT THICKNESS..... | C |

STRUCTURAL OBSERVATION

BOWEN COLLINS & ASSOCIATES SHALL BE NOTIFIED BY THE CONTRACTOR 5 BUSINESS DAYS BEFORE THE COMPLETION OF THE ITEMS LISTED IN THIS SECTION SO THAT STRUCTURAL OBSERVATION MAY BE PERFORMED IN ACCORDANCE WITH IBC SECTION 1704.5. THE OBSERVATIONS WILL BE PERFORMED AT THE DISCRETION OF BOWEN COLLINS & ASSOCIATES. COMPLETED OBSERVATION REPORTS WILL BE SUBMITTED TO THE BUILDING OFFICIAL.

REBAR PRIOR TO PLACEMENT OF CONCRETE



NO.	DATE	REV. BY	DESCRIPTION
1	2/7/24	SDC	ADDENDUM #1 - CLEAR SHEET

VERIFY SCALE
BARS ARE ONE INCH ON ORIGINAL DRAWING

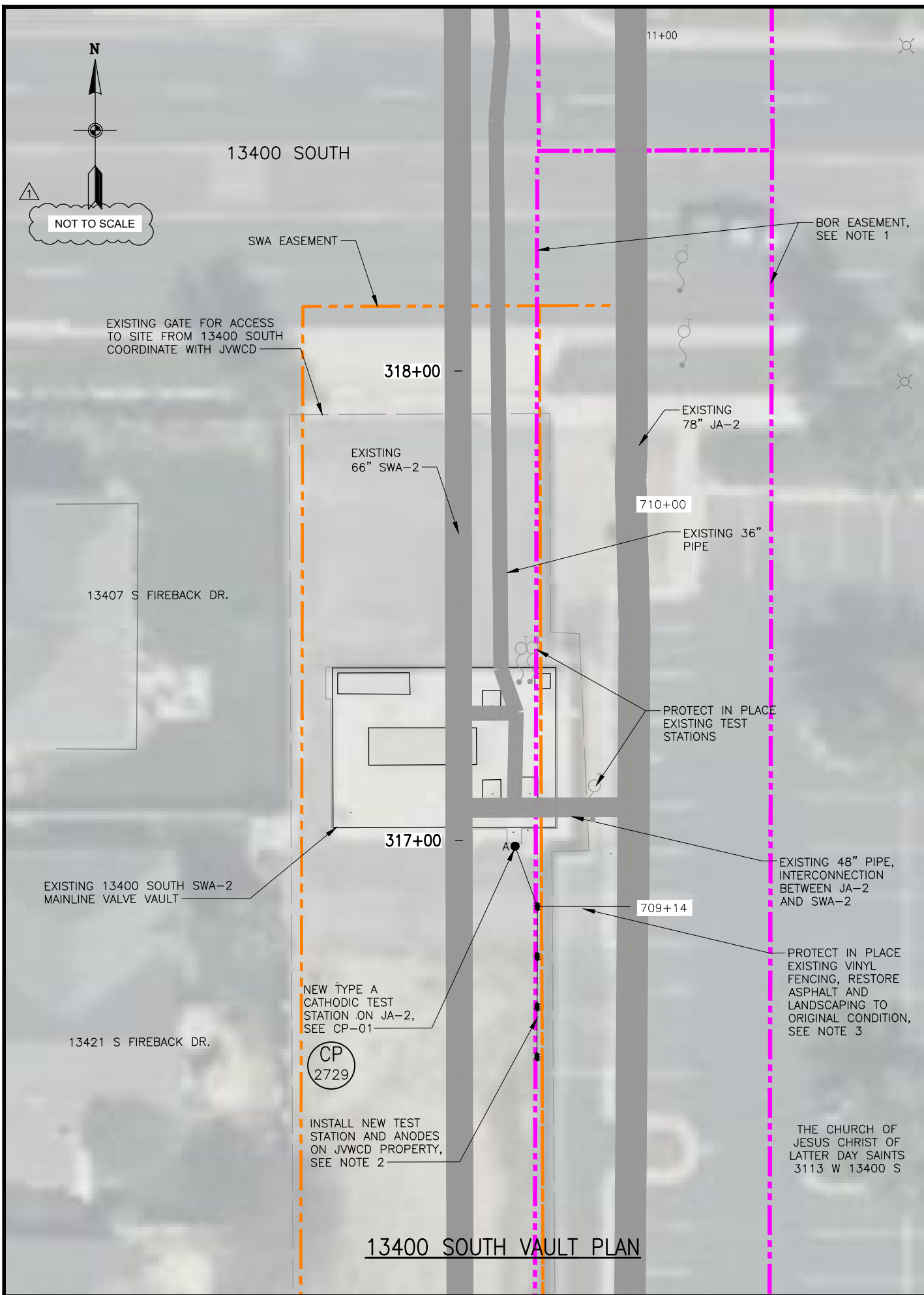
DESIGN	REVIEW
DESIGN: S. PUGH	CHECKED: S. COHEN
DRAWN: S. PUGH	APPROVED: S. COHEN

SOUTHWEST AQUEDUCT REACH 2
RIVERTON AND SOUTH JORDAN, UT

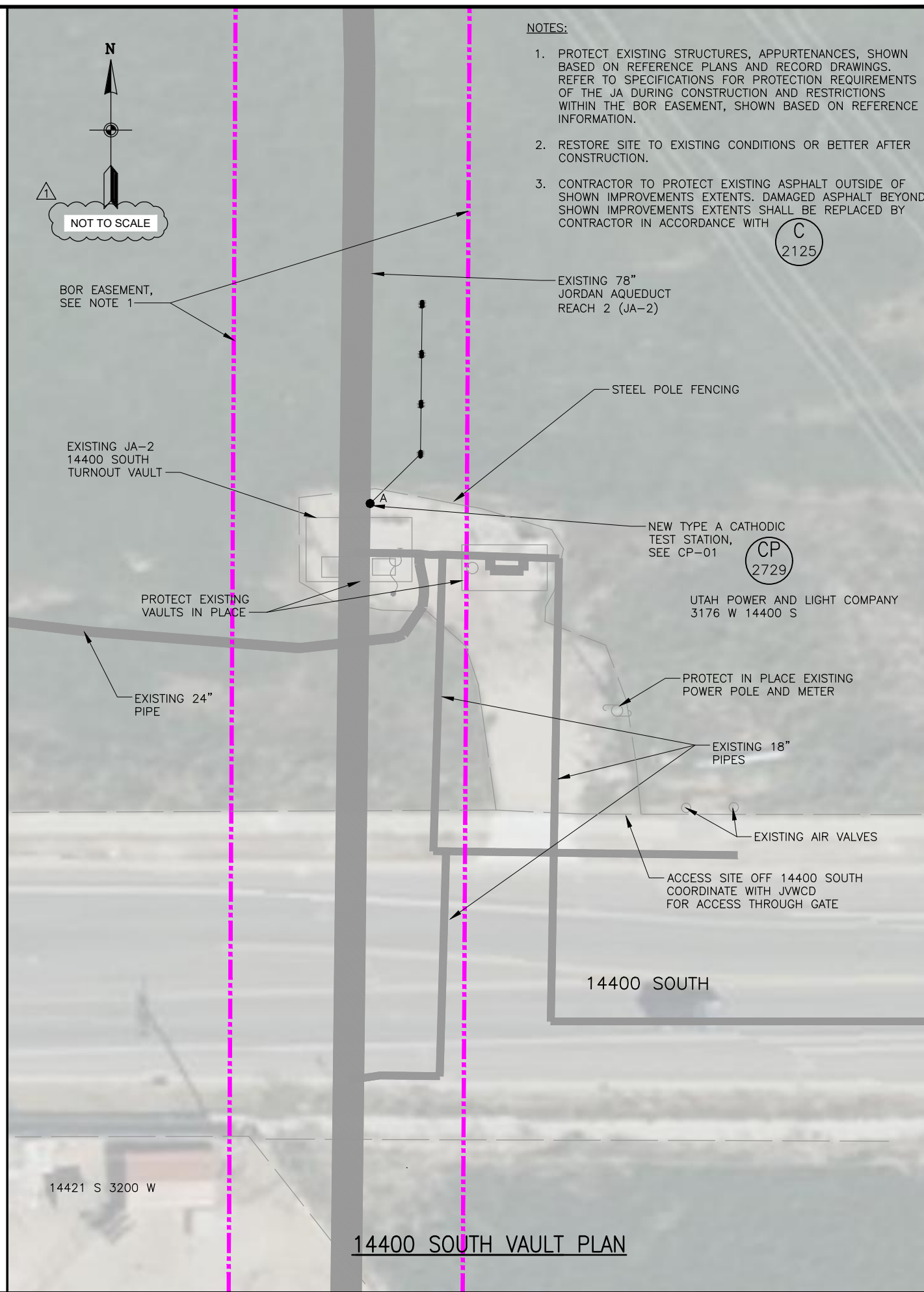
GENERAL STRUCTURAL NOTES

DATE: JANUARY 2025
PROJECT NUMBER: 010-23-02

DRAWING NO.
GS-01



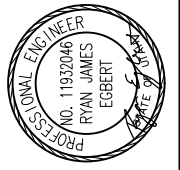
13400 SOUTH VAULT PLAN



14400 SOUTH VAULT PLAN

NOTES:

1. PROTECT EXISTING STRUCTURES, APPURTENANCES, SHOWN BASED ON REFERENCE PLANS AND RECORD DRAWINGS. REFER TO SPECIFICATIONS FOR PROTECTION REQUIREMENTS OF THE JA DURING CONSTRUCTION AND RESTRICTIONS WITHIN THE BOR EASEMENT, SHOWN BASED ON REFERENCE INFORMATION.
2. RESTORE SITE TO EXISTING CONDITIONS OR BETTER AFTER CONSTRUCTION.
3. CONTRACTOR TO PROTECT EXISTING ASPHALT OUTSIDE OF SHOWN IMPROVEMENTS EXTENTS. DAMAGED ASPHALT BEYOND SHOWN IMPROVEMENTS EXTENTS SHALL BE REPLACED BY CONTRACTOR IN ACCORDANCE WITH



NO.	DATE	REV. BY	DESCRIPTION
1	2/7/25	RJE	ADDITIONAL #1 - SCALE UPDATE

VERIFY SCALE
 BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN: L. MINCK
 DRAWN: J. BLACK
 REVIEW: C. NELSON
 CHECKED: C. NELSON
 APPROVED: J. LUETTINGER

JORDAN VALLEY WATER CONSERVANCY DISTRICT
 RIVERTON AND SOUTH JORDAN, UT
SOUTHWEST AQUEDUCT REACH 2

CATHODIC PROTECTION
JA-2 TYPE A TEST STATION PLANS
 DATE: JANUARY 2025
 PROJECT NUMBER: 010-23-02